REMARKS

Claims 11-30 are active in this application.

Applicants wish to thank Examiner Wood and supervisory Examiner Tarazano for the helpful and courteous discussion with Applicants' Representatives on January 27, 2009. During this discussion it was noted that Bartz does not disclose a syntactic polyurethane.

Further, the material of Bartz is not suitable for insulation of off-shore pipelines.

Applicants respectfully request reconsideration of the application, as amended, in view of the following remarks.

The rejections of the claims over Bartz et al, alone or in view of Massey or Lively are respectfully traversed.

There is no disclosure or suggestion in Bartz et al (US 6,790,537) of a **syntactic polyurethane** prepared by the process as claimed in **Claim 11, Claim 15** said polyurethane being obtained **in the presence of c) hollow microspheres**.

Further, there is no disclosure or suggestion in Bartz et al (US 6,790,537) of a method of insulating an offshore pipe as claimed in **Claim 16** wherein **a layer of a syntactic polyurethane is prepared on an inner pipe of said offshore pipe by reacting components in the presence of hollow microspheres.** Further, there is no disclosure or suggestion in Bartz et al (US 6,790,537) of the respective **offshore pipe** as claimed in **Claim 17.**

Massey and Lively do not cure the defects of Bartz et al as they does not disclose the preparation of syntactic polyurethane in the presence of hollow microspheres, or the respective offshore pipe and the method of making an offshore pipe.

Further, the present specification discloses at page 1, line 26 to page 2, line 2:

> In order to obtain good insulation properties of a foam system, it is advantageous to incorporate as many hollow microspheres as possible into the system. What is problematic is that high filler contents lead to system components which have high viscosities and are frequently thixotropic and may be nonpumpable and poorly miscible. These problems are intensified by virtue of the fact that, in the field of use of the polyurethanes, the total filler content usually has to be added to a polyol component since the hollow glass spheres are generally not compatible with the isocyanate because, owing to the water content and/or the alkali metal content at the surface of glass, the quality of the isocyanate is adversely affected.
>
> It is an object of the present invention to provide a formulation for the preparation of syntactic polyurethanes which, on the one hand, permits a high load of hollow microfillers and thus leads to a low overall density and, on the other hand, permits the properties required for offshore insulation, such as good extensibility and a softening point above 150°C. Furthermore, it is also intended to achieve a high level of processing safety.
>
> We have found that this object is achieved by preparing a syntactic polyurethane by reacting commercial polyisocyanates with a special polyol formulation.

The achievement of a high load of hollow microfillers, a low overall density and, properties required for offshore insulation, such as good extensibility and a softening point above 150°C, are not disclosed in Bartz et al, alone or in view of Lively or Massey. Furthermore, there is no disclosure of the achievement of a high level of processing safety.

Bartz does not disclose a syntactic polyurethane or a polyurethane comprising hollow microspheres as fillers.

In contrast, the present application claims a syntactic polyurethane which can be used as insulation material for off shore pipelines. In one embodiment, it is important for the application as insulation material that the polyurethane comprises as many hollow

microspheres as possible (see page 1, lines 26-27 of the specification). Further, the material needs to show a good extensibility and a softening point above 150°C (see page 1, lines 36 to 41 of the specification). On the other hand, the syntactic material may not comprise gas bubbles because these bubbles will collapse under water pressure. Then water could enter the cavities and the material will tend to hydrolysis. Therefore a material as provided by Bartz will not be suitable for the purpose of the present application because the polyurethane foam of Bartz comprises 0.1 to 50 vol.-% of a gas. Thus, the polyurethane foam of Bartz is not suitable for insulating offshore pipes.

The Examiners' argument that a material according to Bartz could be modified for the application as insulation material for off shore applications is not only hindsight but also would encompass excluding an essential element of the polyurethane foam of Bartz, namely the 0.1 to 50 vol.-% of a gas as it is this gas that will lead to the collapse of the material under water pressure as discussed above. Therefore the present application can not be considered as being obvious over Bartz.

Further, Bartz discloses composite materials for use in construction materials which can bear high loads. This technology is the so called SPS (Steel-Polyurethane-Steel)-technology. Conventionally a construction elements made of steel is constructed as T-beam or double T-beam to bear high loads. Focus of the SPS technology is to replace the conventionally used T-beams by a sandwich element steel-polyurethane-steel to save steel and to reduce the weight of the construction element. Insulation is not an object of the SPS-technology.

In contrast, syntactic polyurethanes according to the present invention are used as insulation material for off shore insulation. As stated on page 1, lines 11 to 14 of the

specification, syntactic plastics are defined as plastics which contain hollow fillers which are usually used as thermal insulating coatings, preferably in the offshore sector owing to their advantageous compressive strength and thermal stability. Other known applications are as fireproof material and as sound insulation material. To withstand water pressure in off shore applications syntactic plastics are usually not foamed and do not comprise a cellular structure. To improve thermal insulation properties it is the aim to incorporate as many hollow fillers as possible and to maintain and improve mechanical properties as extensibility, compressive strength and softening point above 150 °C (page 1, lines 36 to 41).

There was no motivation to modify a composite material according to Bartz and to use said material for off shore insulation.

Massey and Lively do not cure the defects of Bartz et al as they does not disclose the preparation of syntactic polyurethane in the presence of hollow microspheres, or the respective offshore pipe and the method of making an offshore pipe.

Therefore, the rejection of the claims over Bartz et al, alone or in view of Massey or Lively are believed to be unsustainable as the present invention is neither anticipated nor obvious and withdrawal of this rejection is respectfully requested.

This application presents allowable subject matter, and the Examiner is kindly requested to pass it to issue. Should the Examiner have any questions regarding the claims or

otherwise wish to discuss this case, he is kindly invited to contact Applicants' below-signed representative, who would be happy to provide any assistance deemed necessary in speeding this application to allowance.

Respectfully submitted,

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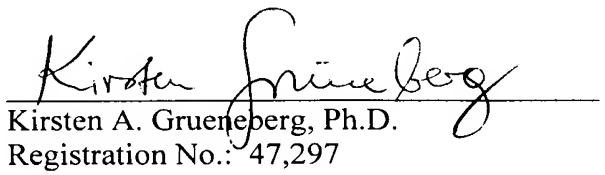

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